Walker, C. E., M.Sc., M.R.C.S., etc. *Hereditary Characters and their Modes of Transmission.* Arnold; 1910; 8*s.* 6*d.*

THE author of the book under review attempts a survey of the science of heredity and of modern speculation concerning Evolution. Taking as basis his own belief in the importance of cell phenomena for the elucidation of life, he deals with instinct, variation, recapitulation, sex, Mendelism, etc., in the space of 230 pages. Acquired characters are once again proved not to be inherited; and "a complete theory dividing characters into individual and racial, and attributing to each a different mode of transmission is put forward here for the first time." To discuss this theory would be to deal with Dr. Walker's pretext rather than with his performance; but it may be said at once that if there are any other ideas put forward here for the first time by Dr. Walker, that is not to say they have been unknown or inaccessible to "the ordinary cultured reader" for whom the book was written. On the contrary.

There is some disputation in the book. That there is also an air of unreality about most of Dr. Walker's argument is probably due less to the fact that this same air surrounds very much of the cytological work with which he deals than to the other fact that Dr. Walker himself is obviously satisfied with the results of his own analysis. His readers will not share this satisfaction. It is true that the vicious circle has had a place for so long in the discussion of biological problems as to have become, by usage, almost a figure of rhetoric. But in this book too much has been made of a method which, if it is tolerable, is scarcely one to be relied upon for carrying conviction.

On page 153 one finds this: "If the inheritance of acquired characters is usual, we ought then to find improvement in the races subject to the most favourable conditions, and degeneration in races subjected to unfavourable conditions, for if an unfavourable environment injures the individual from childhood, and the germ cells are influenced by the action of the environment upon the individual, the unfavourable environment must injure the germ cells.

"Observed facts seem to contradict this in the strongest manner possible. In parasites which live inside other animals, the conditions of living are extremely favourable. . . . It would be difficult to imagine conditions more favourable to the well-being of the individual. We find, however, that in parasites the tendency to degenerate from the parent forms is universal . . . the parasite frequently consists of very little more than a digestive and a generative apparatus. Every other part of its body has degenerated."

It is truly astonishing what manœuvres can be executed in the shelter of such words as 'favourable,' 'improvement,' 'degenerate.' It would, however, be still more astonishing to find that they could lead anywhere beyond the words themselves.

The itch to write a book on Evolution, and the possession of a wide acquaintance with the literature of recent research, do not, in themselves, constitute any sufficient title to that task of exposition which is the complement of the business of investigation. Neither is it sufficient to have been oneself concerned in the making of new advances in science. The first qualification for writing about Evolution is to be able to write. The contrary supposition has been current only at the cost of a great many bad books and a great deal of wasted labour. The only justification for a book on Evolution is that it should have something to say and say it well. Dr. Walker has treated the matter too cavalierly.

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